WHAT IS CLAIMED IS:

SUBA 1. An apparatus for processing a digital picture signal, comprising:

means for receiving a digital picture signal having picture type data included in a data identification area of said digital picture signal indicating one of intrapicture coding, predictive coding and bidirectionally predictive coding for respective pictures represented by said digital picture signal; and

coding means for encoding said digital picture signal as a function of said picture type data to produce an encoded digital picture signal.

2. The apparatus of claim 1, wherein said picture type data identifies previous types of coding for said respective pictures represented by said digital picture signal.

3. The apparatus of claim 1, wherein said means for receiving includes means for extracting said picture type data from said digital picture signal.

4. The apparatus of claim 1, wherein said picture type data identifies an encoding structure of a group of pictures represented by said digital picture signal and further identifies each respective picture within said group of pictures so as to identify the type of encoding of said digital picture signal for each said picture.

4.
5. The apparatus of claim 1, wherein said picture type data is included in a data identification area of at least a vertical blanking interval of said digital picture signal.

5.
6. The apparatus of claim 1, further comprising means for decoding said encoded digital picture signal as a function of said picture type data.

6.
7. The apparatus of claim 1, wherein said coding means includes motion vector detection means for detecting motion vectors between said pictures represented by said digital picture signal as a function of said picture type data; predictive judging means for choosing one of intra-coding, forward predictive coding, backward predictive coding and bi-directionally predictive coding said digital picture signal as a function of said picture type data; and variable length coding means for encoding said picture type data in said encoded digital picture signal.

SUBR)   8. An apparatus for processing an encoded digital picture signal, comprising:

means for decoding said encoded digital picture signal to produce picture type data representing a type of encoding of said encoded digital picture signal and to produce a decoded digital picture signal; and

means for including said picture type data in a data identification area of said decoded digital picture signal to produce an output signal.

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9. The apparatus of claim 8, wherein said picture type data identifies a previous encoding structure of a group of pictures represented by said encoded digital picture signal and further identifies each respective picture within said group of pictures represented by said decoded digital picture signal so as to identify the previous type of encoding for each picture represented by said decoded digital picture signal.

10. The apparatus of claim 8, wherein said means for including is operable to include said picture type data in a data identification area of at least a vertical blanking interval of said decoded digital picture signal to produce said output signal.

11. The apparatus of claim 8, further comprising means for encoding said decoded digital picture signal as a function of said picture type data.

12. The apparatus of claim 8, wherein said means for decoding includes variable length decoding means for separating said picture type data from said encoded digital picture signal, and wherein said means for including is operative to include the separated picture type data in said decoded digital picture signal.

SUBA3 13. A method of processing a digital picture signal, comprising the steps of:

receiving a digital picture signal having picture type data included in a data identification area of said digital

picture signal indicating one of intrapicture coding, predictive
coding and bidirectionally predictive coding for respective
pictures represented by said digital picture signal; and

     encoding said digital picture signal as a function of
said picture type data to produce an encoded digital picture
signal.

16. ~~14.~~ The method of claim ~~13~~, wherein said picture type
data identifies previous types of coding for said respective
pictures represented by said digital picture signal.

17. ~~15.~~ The method of claim ~~13~~, wherein said step of
receiving is carried out by extracting said picture type data
from said digital picture signal.

~~16. The method of claim 13, wherein said picture type
data identifies an encoding structure of a group of pictures
represented by said digital picture signal and further identifies
each respective picture within said group of pictures so as to
identify the type of encoding of said digital picture signal for
each said picture.~~

18. ~~17.~~ The method of claim ~~13~~, wherein said picture type
data is included in a data identification area of at least a
vertical blanking interval of said digital picture signal.

19. ~~18.~~ The method of claim ~~13~~, further comprising the
step of decoding said encoded digital picture signal as a
function of said picture type data.

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20.
~~19~~. The method of claim ~~13~~ 15, wherein said step of encoding is carried out by detecting motion vectors between said pictures represented by said digital picture signal as a function of said picture type data; choosing one of intra-coding, forward predictive coding, backward predictive coding and bi-directionally predictive coding said digital picture signal as a function of said picture type data; and variable length encoding said picture type data in said encoded digital picture signal.

SUB A7   20. A method of processing an encoded digital picture signal, comprising the steps of:

decoding said encoded digital picture signal to produce picture type data representing a type of encoding of said encoded digital picture signal and to produce a decoded digital picture signal; and

including said picture type data in a data identification area of said decoded digital picture signal to produce an output signal.

21. The method of claim 20, wherein said picture type data identifies a previous encoding structure of a group of pictures represented by said encoded digital picture signal and further identifies each respective picture within said group of pictures represented by said decoded digital picture signal so as to identify the previous type of encoding for each picture represented by said decoded digital picture signal.

ADDAS

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22. The apparatus of claim 20, wherein said step of including is carried out by including said picture type data in a data identification area of at least a vertical blanking interval of said decoded digital picture signal to produce said output signal.

23. The method of claim 20, further comprising the step of encoding said decoded digital picture signal as a function of said picture type data.